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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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04/12/2001

Fumio Suzuki

180640

4584

7590

10/18/2004

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EXAMINER

LUK, LAWRENCE W


ART UNIT

PAPER NUMBER

2838

DATE MAILED: 10/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/833,884	Applicant(s) SUZUKI ET AL.	
	Examiner Lawrence W Luk	Art Unit 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,7-16,21-64 and 66-95 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 86-88,92 and 95 is/are allowed.
- 6) ☒ Claim(s) 1,3,4,7-10,12,13,15,16,23-25,28,33,41,62,63,70-84,89-91,93 and 94 is/are rejected.
- 7) ☒ Claim(s) 11,14,21,22,26,27,29-32,34-40,42-61,64,66-69,85 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/12/04;7/9/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

Claim Objections

1. Claims 93 and 94 are objected to because of the following informalities: Claims 93 and 94 are dependent to claim 2, but claim 2 has been cancelled. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 4, 7-9, 10, 12, 16 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toyosato (6,532,482) in view of Matsuda (6,211,649).

In re claims 1 and 41, Toyosato discloses a charger, which is either built into a personal computer or connected directly or indirectly thereto, whereby an internal power supply source of the PC is used as a power supply for the charger in a charging operation for the secondary cell, and wherein the charger having built into it a charging processing operation program required for charging of the secondary cell whereby a charging operation is performed by executing the charging processing operation program selected for the secondary cell to be charged with utilizing an electric power supplied from the internal power supply

source of the PC (Fig. 1; col. 7, lines 5-49); a battery holding apparatus which holds at least a secondary cell (139, 140) to be charged and connected directly or indirectly to the charger (134) (Fig. 1); and a display means connected to the PC and displaying at least one information selected from a group consisting information related to a secondary battery to be charged, information related to conditions required for charging the secondary cell to be charged and information related to past and current charging situation or results of the charging operation (Fig. 1; col. 7, lines 7-49); but fails to teach an input means connected to the PC and for inputting information at least about the respective secondary cell to be charged necessary to execute the charging processing operation program into a controller provided in the PC.

Matsuda teach an input means connected to the PC and for inputting information at least about the respective secondary cell to be charged necessary to execute the charging processing operation program into a controller provided in the PC.

It would have been obvious for a person with ordinary skill in the art at the time the invention was made to include an input means connected to the PC and for inputting information at least about the respective secondary cell to be charged necessary to execute the charging processing operation program into a controller provided in the PC in the invention of Toyosato for the purpose of increased efficiency in the process. Further, the "whereby" clause as claimed in claim 1 has not been given any patentable weight because it has been held that

the function "whereby" statement does not define any structure and accordingly can not serve to distinguish. In re Mason, 114 USPQ 127, 44 CCPA 937 (1957).

In re claim 3, Toyosato in view of Matsuda are applied supra, further Toyosato teaches the PC is selected from a group of a general-purpose PC including a desktop PC, a laptop PC, a mobile type PC, a dedicated game-us PC, and a TV PC with a bi-directional communication capability (col. 3, line 10 and col. 4, lines 25-35).

In re claim 4, Toyosato in view of Matsuda are applied supra, further Matsuda teaches the charger is either a charging processing operation program required for a charging operation on a secondary cell or is an apparatus into which a charging processing operation program required for a charging operation to a secondary cell is built (col. 4, lines 8-15).

In re claim 7, Toyosato in view of Matsuda are applied supra, further Matsuda teaches the PC is provided with a driving controlling program for driving a charging controlling program installed in the charger (col. 1, lines 55-62).

In regard to claims 10 and 16, Toyosato in view of Matsuda are applied supra, further Toyosato shows an apparatus that forms the charger which is selected from a group consisting of an international PCI (PC interface) standard selecting from either one of a PCI board or PCI card each including said charging processing operation program therein, an IC chip mounted on an expansion board or the like, a CD-ROM, a floppy disk, an IC card each including said charging processing operation program therein and a PC hard disk (HD) onto

which said charging processing operation program has been installed (refer to col.3, lines 52-53 and col.6, lines 11-23).

In re claim 8, Toyosato in view of Matsuda are applied supra, further Matsuda shows a controlling-condition-inputting means consisting of either a key-board or a mouse of a PC, at least one of information selected from a group of charging processing information, charging processing condition, information of a battery to be charged, situation of charging process proceeding, charging history or the like is selected so as to make a control based upon the selected information and the result thereof being displayed on said display means of said PC (refer to col.1, line 31 and col.1, lines 40-44).

In regard to claim 9, Toyosato in view of Matsuda are applied supra, further Matsuda teaches charging processing operation program is made separately based upon kinds of batteries, models thereof or applications thereof, respectively (refer to col.9, lines 2-10).

In regard to claim 12, Toyosato in view of Matsuda are applied supra further Matsuda teaches a charger is connected to said power supply circuit of said PC through an internationally standardized interface such as a PC or a USB of said PC (refer to col.2, lines 55-60).

4. Claim 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toyosato (6,532,482) in view of Matsuda (6,211,649), as discussed above, and further in combination with Nelson et al. (5,592,528).

In regard to claim 13, Toyosato in view of Matsuda are applied supra, but fail to teach a battery holding apparatus connected to said charger provided with a chip into which said charging processing operation program being installed therein and mounted on a board which is inserted into a board insertion slit of said PC, through an appropriate connector and/or cable.

Nelson teach a battery holding apparatus connected to said charger provided with a chip into which said charging processing operation program being installed therein and mounted on a board which is inserted into a board insertion slit of said PC, through an appropriate connector and/or cable (refer to col.7, lines 38-45).

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the device of Toyosato and Matsuda to include to have a chip and be mounted on a board which is inserted into the slit of the PC as taught by Nelson et al. for ease of utility.

5. Claim 15 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toyosato (6,532,482) in view of Matsuda (6,211,649) as discussed above, and further in combination with Anderson (5,982,147).

In regard to claim 15, Toyosato and Matsuda are applied supra, but fail to teach a charger provided outside of said PC, said charger is connected to said internal power supply circuit of said PC through said board inserted into said board insertion slit or through said USB connector provided with said PC.

Anderson shows a charger is provided outside of said PC, said charger is connected to said internal power supply circuit of said PC through said board inserted into said board insertion slit or through said USB connector provided with said PC (refer to col.4, lines 37-47).

It would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify the device of Toyosato and Matsuda to include a charger provided outside of said PC, said charger is connected to said internal power supply circuit of said PC through said board inserted into said board insertion slit or through said USB connector provided with said PC as taught by Anderson for the purpose of improving a system for electrically coupling a computer.

In regard to claim 28, Toyosata in view of Matsuda are applied supra, but fail to teach a user uses an appropriate input means associated with said PC to input information regarding a secondary cell requiring charging processing inserted in said battery holding apparatus, said information being displayed on a display means of said PC.

Anderson shows a user uses an appropriate input means associated with said PC to input information regarding a secondary cell requiring charging processing inserted in said battery holding apparatus, said information being displayed on a display means of said PC (refer to abstract).

It would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify the device of Toyosato in view of Matsuda to include a user that uses an appropriate input means associated with said PC to input

information regarding a secondary cell requiring charging processing inserted in said battery holding apparatus, said information being displayed on a display means of said PC as taught by Anderson for the purpose of displaying a status condition of a smart battery.

6. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Toyosato (6,532,482) in view of Matsuda (6,211,649), as discussed above, and further in combination with Murakawa (6,249,607).

In regard to claim 23, Toyosato in view of Matsuda are applied supra and disclose the elements as claimed, except for the charging processing operation program included in the charger is either built into said PC by inserting a floppy disk, CD-ROM, or an IC card containing said charging processing operation program into a prescribed location of said PC, or by inserting a PCI board onto which an IC chip containing said charging processing operation program has been mounted into an expansion slot of said PC.

Murakawa shows a charger is either a charging processing operation program required for a charging operation on a secondary cell or is an apparatus into which a charging processing operation program required for a charging operation to a secondary cell is built (refer to col.5, lines 30-37).

It would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify the device of Toyosato and Matsuda to include a charger is either a charging processing operation program required for a charging

operation on a secondary cell or is an apparatus into which a charging processing operation program required for a charging operation to a secondary cell is built as taught by Murakawa the purpose of providing a computer program product in a memory for executing image processing.

7. Claims 24, 25 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toyosato (6,532,482) in view of Matsuda (6,211,649) and further in combination with Singleton (6,501,949).

In regard to claim 24, Toyosato and Matsuda are applied supra and discloses the elements as claimed, except for each of said charging processing operation program is created so as to have a respective charging process operation condition of a secondary cell to be subjected to charging processing, being different from each other based upon at least one factor among a secondary cell manufacturer name, secondary cell type, model, construction, quantity, battery capacity, and internal resistance and the like .

Singleton shows each of said charging processing operation program is created so as to have a respective charging process operation condition of a secondary cell to be subjected to charging processing, being different from each other based upon at least one factor among a secondary cell manufacturer name, secondary cell type, model, construction, quantity, battery capacity, and internal resistance and the like (refer to col.2, lines 6-9 and col.4, lines 39-42).

It would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify the device of Toyosato and Matsuda to include

each of said charging processing operation program created so as to have a respective charging process operation condition of a secondary cell to be subjected to charging processing, being different from each other based upon at least one factor among a secondary cell manufacturer name, secondary cell type, model, construction, quantity, battery capacity, and internal resistance and the like as taught by Singleton the purpose of improving current status information about the power source.

In regard to claim 25, Toyosato in view of Matsuda and Singleton are applied supra, further Singleton shows the charging processing operation program has a function to distinguish at least one information selected from a group of information consisting a manufacturer name, secondary cell type, model, construction, quantity, battery capacity, and internal (refer to col.4, lines 39-42 and col.5, lines 1-10).

In regard to claim 33, Toyosato in view of Matsuda and Singleton are applied supra, further Singleton shows a display means of said PC displays at least one information selected from a manufacturer name, a battery type, battery capacity, charging rate, and internal resistance and the like with regard to charging operation conditions for said selected secondary cell requiring charging processing, and displays information in that whether it distinguishes the start of charging or charging in progress (refer to col.5, lines 1-10).

8. Claims 62, 63 and 89-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toyosato (6,532,482) in view of Matsuda (6,211,649) as applied to claim 1 above, and further in view of Pan (6,542,092).

In regard to claim 62, Toyosato in view of Matsuda are applied supra, and teach the charger connected to the internal power supply circuit of the PC having built into it a charging processing operation program required for charging the secondary cell whereby a charging operation is performed by executing said charging processing operation program selected for the secondary cell to be charged with utilizing an electric power supplied from the internal power supply circuit of the PC, while displaying at least either one of information related to the secondary cell to be charged or information related to the charging condition of the charging operation as being carried out on a display means connected to the PC, but fail to teach a secondary cell charging method wherein a charger to which is connected either a holder part configured so as to enable acceptance and a charging processing operation separately on one or a plurality of secondary cells of various sizes requiring charging processing, or a stand part configured so as to enable acceptance and a charging processing operation of a cell package in that a plurality of secondary cell of the same size packaged within a prescribed pack, or directly of a cellular telephone with said pack built thereinto, is either built into a PC or connected externally thereto, whereby an internal power supply circuit of the PC 's used as a power supply in a charging operation (refer to Fig.1 and col. 1, line 50-53).

Pan teaches a secondary cell charging method wherein a charger to which is connected either a holder part configured so as to enable acceptance and a charging processing operation separately on one or a plurality of secondary cells of various sizes requiring charging processing, or a stand part configured so as to enable acceptance

and a charging processing operation of a cell package in that a plurality of secondary cell of the same size packaged within a prescribed pack, or directly of a cellular telephone with said pack built thereinto, is either built into a PC or connected externally thereto, whereby an internal power supply circuit of the PC 's used as a power supply in a charging operation (refer to Fig.1 and col. 1, line 50-53).

It would have been obvious to one having ordinary skill in the art to have a charger to which is connected either a holder part configured so as to enable acceptance and a charging processing operation separately on one or a plurality of secondary cells of various sizes requiring charging processing, or a stand part configured so as to enable acceptance and a charging processing operation of a cell package in that a plurality of secondary cell of the same size packaged within a prescribed pack, or directly of a cellular telephone with said pack built thereinto, is either built into a PC or connected externally thereto, whereby an internal power supply circuit of the PC 's used as a power supply in a charging operation in the invention of Toyosato in view of Matsuda for increased ease of utility. Further, the "whereby" clause as claimed in claim 62 has not been given any patentable weight because it has been held that the function "whereby" statement does not define any structure and accordingly can not serve to distinguish. In re Mason, 114 USPQ 127, 44 CCPA 937 (1957).

In regard to claim 63, Toyosato in view of Matsuda and Pan are applied supra, further Pan shows the charger connected to said: internal power supply circuit of said PC s connected to a signal output terminal of said PC or is connected to said signal output terminal being either directly or indirectly, via an appropriate connector and/or

cable, so that a charging processing operation on a secondary cell is performed (refer to col.1, lines 1-9).

In regard to claims 89-91, Toyosato in view of Matsuda and Pan are applied supra, further Pan shows a provider of said charging processing operation program discloses optimum charging processing conditions or a charging processing operation program for a prescribed secondary cell on a web page via the Internet, so that any user can access said provider of said charging processing operation program and receive distribution of said charging processing operation program via said internet (refer to col 1, lines 48-55).

9 Claims 70-84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toyosato (6,532,482) in view of Matsuda (6,211,649) and Pan (6,542,092) as discussed above, and further in view of Anderson (5,982,147).

In regard to claims 70, 71 and 79-83, Toyosato in view of Matsuda and Pan are applied supra, and teach the charger connected to the internal power supply circuit of PC having built into it a charging processing operation program but fails to teach said charging processing operation program has mutually different charging processing conditions from each other as set for at least one factor among a secondary cell manufacturer name, secondary cell type, model, construction, quantity, battery capacity, and internal resistance and the like of a secondary cell to be subjected to charging processing.

Anderson teach said charging processing operation program has mutually different charging processing conditions from each other as set for at least one factor

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among a secondary cell manufacturer name, secondary cell type, model, construction, quantity, battery capacity, and internal resistance and the like of a secondary cell to be subjected to charging processing (refer to col.1, lines 13-20)

It would have been obvious for a person with ordinary skill in the art at the time of the invention was made to modify the device of Toyosato, Matsuda and Pan include charging processing operation program has mutually different charging processing conditions from each other as set for at least one factor among a secondary cell manufacturer name, secondary cell type, model, and internal resistance and the like of a secondary cell to be subjected to charging processing as taught by Anderson for providing information related to a status condition of the smart battery to a user.

In regard to claims 72-75, 77 and 84, Toyosato in view of Matsuda, Pan and Anderson are applied supra, further Anderson teach user uses an appropriate input means associated with said PC to input information regarding a secondary cell requiring charging processing and inserted in said holder part or said stand, said information being displayed one display means of said PC (refer to col.4, lines 19-27).

In regard to claims 76 and 78, Toyosato in view of Matsuda, Pan and Anderson are applied supra, further Anderson teach said predicted charging characteristics graph indicates a relationship between a battery voltage and a charging time or a relationship between a battery temperature and a charging time, and in a case in which said charging operation is completed, make notification to user of said completion (refer to col. 2, lines 50-61).

Allowable Subject Matter

10. Claims 86-88,92, and 95 are allowed.

Claim 86 is allowable. The reason for allowance is that the prior art of record fails to teach or reasonably suggest a method for charging a secondary cell in a charging system, a step of storing said battery list into a prescribed storage means of said PC, a step of starting software, including said charging processing operation program, a step of inserting a secondary cell requiring charging processing into a holding means of said charger, a step of said charging processing operation program distinguishing information with regard to said secondary cell requiring a charging operation inserted in said charger, selecting from said battery list a charging processing operation program suitable for a charging operation of said secondary cell, and of displaying said selected charging processing operation program on said display means, together with a charging graph or other battery information, a step of inputting a number of secondary cells to be charged simultaneously, a step of verifying charging conditions on a screen of said display means, and then starting a charging operation, a step during a charging processing operation of either causing drive of an alarm means, which makes notification that a charging processing operation is in progress, or causing a dynamic display of a charging graph on said display means, and a step, in a case in which said charging processing operation on said secondary cell is completed, of performing a display indicating that said charging processing operation has been completed.

Claim 92 is allowed due to its dependency on claim 86.

Claim 87 is allowable. The reason for allowance is that the prior art of record fails to teach or reasonably suggest a method for charging a secondary cell in a charging system, a step of storing said battery list into a prescribed storage means of said PC, a step of starting software, including said charging processing operation program, a step of inserting a secondary cell requiring charging processing into a holding means of said charger, a step of, in accordance with information with regard to a secondary cell requiring charging processing, selecting a charging processing operation program suitable for a secondary cell requiring a charging processing operation from said battery list, a step of displaying a charging graph, a step of inputting a number of secondary cells to be charged simultaneously, a step of verifying charging conditions on a screen of the display means, and then starting a charging operation, a step during a charging processing operation of either causing drive of an alarm means, which makes notification that a charging processing operation is in progress, or causing a dynamic display of a charging graph on said display means, and a step in a case in which said charging processing operation on said secondary cell is completed of performing a display indicating that said charging processing operation has been completed.

Claim 88 is allowable. The reason for allowance is that the prior art of record fails to teach or reasonably suggest a method for charging a secondary cell in a charging system, a step of storing said battery list into a prescribed storage means of said PC, a step of starting software, including said charging processing operation program, a step of inserting a secondary cell requiring charging processing into a holding means of said charger, a step of a user using said input means to input separately to said PC at least

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a part of a battery manufacturer name, battery type, battery voltage, battery capacity, charging rate, and internal resistance and the like for a secondary cell requiring charging processing, a step of said PC selecting from said battery list, based on said input information, a charging processing operation program suitable for said secondary cell requiring a charging processing operation, a step of displaying a charging graph, a step of inputting a number of secondary cells to be charged simultaneously, a step of verifying charging conditions on a screen of said display means, and then starting a charging operation, a step during a charging processing operation of either causing drive of an alarm means, which makes notification that a charging processing operation is in progress, or causing a dynamic display of a charging graph on said display means, and a step, in a case in which said charging processing operation on said secondary cell is completed, of performing a display indicating that said charging processing operation has been completed.

Claim 95 is allowable. The reason for allowance is that the prior art of record fails to teach or reasonably suggest a method for charging a secondary cell in a charging system, a step of creating a charging processing operation program used for each one of various kinds of secondary cell batteries to be charged, respectively, storing said charging processing operation program created for each one of various kinds of secondary cell batteries to be charged, respectively, into a predetermined memory medium, opening said charging processing operation program to the public through an communication net works or by printing out same on a hard storing medium, providing said charging processing operation program suitable for an user's intention, when said

user having a PC had accessed to this system, asking said user to play a predetermined necessary expenses through a predetermined payment system by a business entity providing said system to the public, providing said charging processing operation program to said user by distributing system or through said communication net works, when said business entity had confirmed that said user had said predetermined expenses through said predetermined payment system.

11. Claims 11, 14, 21, 22, 26, 27, 29-32, 34-40, 42-61, 64 and 66-69 are objected to as being dependent upon a rejected base claim. The prior art of record fails to teach or reasonably suggest that: Claim 11, a charger is connected detachably to any one of output terminals of said internal power supply circuit of said PC, and is further connected either directly or indirectly, by an appropriate connector and/or cable to said battery holding apparatus; Claims 14, a case in which said charger is provided within said PC, said charger is connected to said internal power supply circuit of said PC, and is connected to said battery holding apparatus either directly via a signal output of said PC, or indirectly connected thereto, via a signal output of said PC, utilizing an appropriate connector and/or cable; Claims 21 and 22, a secondary cell charging processing operation program executes high-speed charging processing; Claims 26, 27 and 29, a charger automatically selects a charging processing operation program having the most suitable charging processing condition to said secondary cell battery to be charged, among a plurality of charging processing operation program stored in said charger utilizing information about the secondary cell battery to be charged and

distinguished by said PC, its-self or separate information about the secondary cell battery to be charged which is input into said PC by user utilizing said inputting means; Claim 30, a user based on information regarding a secondary cell requiring charging processing, sets various conditions necessary to be required for charging said secondary cell by selecting same from a large number of alternatives displayed on a display screen of said PC; Claims 31 and 32, a predicted charging characteristics graph with regard to charging operation conditions for said selected secondary cell requiring charging processing can be displayed on said display means of said PC; Claims 34-40, a display means of said PC displays at least one information selected from a manufacturer name, a battery type, battery capacity, charging rate, and internal resistance and the like with regard to charging operation conditions for said selected secondary cell requiring charging processing, and separately displays either one of the start of charging or charging in progress and wherein said display means displays either a separate display of a battery voltage and battery temperature, which vary with the elapse of processing time, or a graph indicating a relationship between a battery voltage and a charging time or a relationship between a battery temperature and a charging time; Claims 42-61, a battery holding apparatus connected directly or indirectly to said charger, said battery holding apparatus includes either a holder part configured so as to enable acceptance and a charging processing operation separately on one or a plurality of secondary cell of various sizes requiring charging processing, or a stand part configured so as to enable acceptance and a charging processing operation of a plurality of secondary cell to be charged of the same size packaged within a prescribed

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pack, or directly of a cellular telephone with said pack built thereinto; Claims 64, 66-69, the secondary cell holder part or stand part is formed so as to match the dimensions or shape of each individual secondary cell; Claims 11, 14, 21, 22, 26, 27, 29-32, 34-40, 42-61, 64 and 66-69 would be allowable if rewritten in independent from including all of the limitations of the base claim.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence W Luk whose telephone number is (571)272-2080. The examiner can normally be reached on 7 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on (571)272-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LWL
October 12, 2004

Lawrence Luk
examiner
10/12/04